

2019-11-27 Low Latency Engineering Telecon #26 - Public Copy

Attendees

- [Richard Carr](#)
- [Anik De Groof](#)
- [Pedro Osuna](#)
- [Christopher James Watson](#)
- [David Williams](#)
- Gethyn Lewis (SWA)
- Chandrasekhar Anekallu (SWA)
- Emil Kraaikamp (EUI)
- Lynn Hutting (SoloHI)
- Terje Fredvik (SPICE)
- [Unknown User \(icarrasc\)](#) (MAG)
- [Xavier Bonnin](#) (RPW)
- Maurizio Pancrazzi (Metis)
- Vincent Evans (MAG)
- [Andrew Walsh](#)

Apologies

- Martin Kolley (PHI)

Agenda

- LLVM S/W versionstamping in products.
- Location of failed directories.
- VM status - Engineering.
- VM product status.
- SOC testing of VMs with PFM TM
 - SOC tried to run SVT-1b LL TM via the VMs as an independent test
 - Not very successful. Only EUI appear to have have generated LL within SVT-1b
 - Brainstorm of alternatives
 - Do FFTs include LL?
 - Can SVT-2 include LL?
 - Can specific VMs process bulk-science?
 - What about instrument commissioning - will you generate LL then?
 - Other ideas?
- AOB

Discussion items

Item	Notes
LLVM S/W versionstamping in products	RC mentioned that there had been some cases of products produced by LLVMs where the software version in the product metadata did not correspond to the version of the VM creating it. He asked that the different instrument teams bear this in mind, and recommend automating the synchronization of this with the VM version.
Location of failed directories	Another reminder. RC mentioned that in new versions of a couple VMs which had been unchanged for a long time failed outputs were still written to the old top-level failed directory. Please bear in mind the changes agreed previous to (by email) and in SOWG#12. ICB mentioned at this point uncertainty about what to do in the cases of partial failures e.g. corrupt packet, possible to create one vector but not others. RC/AW and CW all indicated that if a product can be produced which is considered useful then that should not be treated as a failure. ADG mentioned that the Complete/Incomplete flags may be important in a number of these cases.

<p>VM Status - engineering.</p>	<p>Beyond what has now been added to the status sheet:</p> <p>Emil mentioned that the new EUI VM versions recently delivered are the first set up to handle real telemetry.</p> <p>GL stated that planning a new SWA VM version to take advantage of a library from the HIS team. Whether before launch not certain. Still awaiting the code.</p> <p>LH and ADG discussed the response received by the SOC from Nathan re the LLDAPDD for LL02, and agreed that a dedicated SOC/SoloHI telecon would be appropriate.</p> <p>MP drew attention to the remaining open point on light-curve products. A telecon next week involving DW is expected.</p> <p>SPICE are awaiting a response from DW re the latest products and their ingestion. Dave indicated had only managed a cursory look so far.</p>
<p>VM product status</p>	<p>DW indicated that for:</p> <p>STIX - The products look mostly good in structure, with a couple of elements missing. The actual data also seem reasonable.</p> <p>SPICE - He still has to look at the latest products. He added (a bit later in the telecon) that having spoken with Terje, they had agreed that there would be only 2 image products at LL03, one corresponding to a hot line and the other to a cool line.</p> <p>Metis - The images look good. He sees dimensions of 512x512 and asked if that is what MP was expecting. Maurizio said no. DW will send a document with his observation, and would hope to also discuss them with MP next week (telecon already planned).</p> <p>ADG that for:</p> <p>SoloHI she has had a quick look but still has to do detailed tests. See point above re LL02 telecon.</p> <p>PHI - will continue preparation based on the good sample LL01 files.</p> <p>EUI - She needs feedback on the LL02 document and sample files. EK responded that so far had only had a quick look. He will discuss with Koen and provide feedback by the end of the week.</p> <p>AW mentioned that the only new products from in situ instruments since the last meeting were for EPD, so no comments yet.</p>
<p>Deadline Status</p>	<p>CW wanted to review the current status with reference to 2 specific deadlines.</p> <p>On the VM deliveries:</p> <p>RC summarised the engineering situation: We have VMs which work, at least to the extent of passing, in the SOC environment, the tests which come packaged with them, for 8 instruments. The exceptions are PHI and MAG. And for MAG we have been promised such a VM by next week.</p> <p>Anik indicated that with regard to the files output by the VMs, and given the latest wave of VMs received, another assessment effort from the SOC was needed which would form part of a thoroughgoing rework and revision of the tables detailing the status for the different product levels and the documents.</p> <p>On the DPDD (Science) deliveries (deadline from SWT):</p> <p><i>NB The SOC has versions of these documents since some time ago from RPW and SPICE.</i></p> <p>Anik indicated that there had been little movement on this. She asked if any other teams were ready to move on this. Emil indicated for EUI that theirs would be provided by the end of the week.</p> <p>The SOC will set a milestone in early December to review the situation regarding PHI and MAG VMs.</p>

<p>SOC Testing using PFM Telemetry</p>	<p>CW explained that the SOC had tried to use LL data from SVT-1b to exercise the LLVMs. However on performing the retrievals we found LL data for only EUI.</p> <p>The SOC is interesting in doing this for other instruments, and would like to establish whether SFTs or FFTs will produce LL data.</p> <p>GL asked if this had to be done live, and CW say no - but the MOC had to be listening in. GL confirmed that SWA does produce LL data during SFTs.</p> <p>Isaias stated that MAG had done tests with SVT-1b data and had found LL data and produced a product with 40 vectors. CW asked whether this actually used LL APIDs? Perhaps some LLVMs are able also to handle bulk science data?</p> <p>However Isaias stressed that</p> <ol style="list-style-type: none"> 1. they definitely retrieved one LL packet 2. the MAG VM cannot handle science data. <p>Re other instruments, the telecon was told:</p> <p>EUI expects to produce lots of LL data.</p> <p>Solohi - LH did not remember whether LL produced in these tests. However, the VM will handle bulk science data.</p> <p>Metis - During FFTs the instrument will produce only light-curve LL. But the VM is not currently using this correctly. However the Metis VM should be able to handle bulk science data.</p> <p>SPICE - Terje was not involved in the instrument test development and has no knowledge of whether LL produced. However the VM can handle bulk science.</p> <p>MAG - SFTs produce no LL, FFTs do produce LL. And LL will be produced during commissioning.</p> <p>RPW - is only able to produce one LL product during these tests because of the need for triggering. The same applies during commissioning.</p> <p>CW mentioned that not clear yet whether SFTs or FFTs will be run at the Cape. He asked whether any instrument was uninterested in retrieving this data from the MOC. No instrument was uninterested.</p> <p>GL asked whether we knew when data availability via EDDS was expected. CW did not yet know.</p> <p>TF asked whether the LLVMs will be in use during commissioning. CW indicated that we will process LL from commissioning. The chain will be running more to find where it breaks than to provide useful outputs.</p> <p>GL asked whether, if LL is available in commissioning, the web interface to browse it will be available. CW indicated that it is unlikely to be complete.</p> <p>ICB raise the issue of how to handle calibration in LEOP when MAG and RPW are operating. He was tempted to provide a calibration sequence based on an assumption about the boom deployment timing. AW indicated that the very first vectors are probably only of interest to MAG and will not be interpreted as having profound significance. This combined with the fact that during commissioning the science data are available at the same time, means that it is not worth doing anything sophisticated.</p>
<p>AoB</p>	<p>Depending on whether there is a SOWG in January, the next meeting will be a splinter or a telecon. RC will arrange for now a telecon for Jan 22nd at 15:00</p>

Preparatory Actions

New Actions

None.